

WHAT IS CLAIMED IS:

1. An innerspring assembly, comprising:  
a plurality of strips of pocketed coil springs extending generally along an axis, each of said strips including a plurality of axially interconnected spring  
5 pockets each having a pocket height transverse to said axis, each of said strips comprising overlapping plies of material adjoined together by axially offset cross seams extending generally along said pocket height to define said spring pockets, each of said springs pockets containing a coil spring; and  
wherein at least two of said strips of pocketed coil springs are coupled  
10 together by interconnecting said overlapping plies of material of said at least two strips by at least one connecting seam extending along said pocket height and axially offset from said cross seams.
2. The innerspring assembly of claim 1, wherein said connecting seam  
15 extends substantially entirely along said pocket height.
3. The innerspring assembly of claim 1, wherein said connecting seam is arranged substantially parallel with said cross seams.
- 20 4. The innerspring assembly of claim 3, wherein said connecting seam is disposed proximately adjacent one of said cross seams.
5. The innerspring assembly of claim 1, wherein each of said cross  
seams comprises at least one cross weld seam; and  
25 wherein said connecting seam comprises at least one connecting weld

seam.

6. The innerspring assembly of claim 5, wherein said at least one cross weld seam and said at least one connecting weld seam are formed by ultrasonic welding.

7. The innerspring assembly of claim 5, wherein said at least one cross weld seam and said at least one connecting weld seam are each comprised of a plurality of discrete weld segments.

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8. The innerspring assembly of claim 1, wherein each of said cross seams comprises a pair of axially offset cross weld seams.

9. The innerspring assembly of claim 8, wherein said at least one connecting seam comprises a pair of axially offset connecting weld seams disposed on either side of said pair of axially offset cross weld seams.

10. The innerspring assembly of claim 8, wherein said at least one connecting seam comprises at least one connecting weld seam disposed intermediate said pair of axially offset cross weld seams.

11. The innerspring assembly of claim 1, wherein said at least one connecting weld seam comprises a pair of axially offset connecting weld seams.

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12. The innerspring assembly of claim 11, wherein each of said cross seams comprises at least one cross weld seam disposed intermediate said pair of axially offset connecting weld seams.

5           13. The innerspring assembly of claim 12, wherein each of said cross seams comprises a pair of axially offset weld seams disposed intermediate said pair of axially offset connecting weld seams.

14. The innerspring assembly of claim 1, wherein each of said pocketed  
10 coil springs in said at least two strips has a substantially uniform pocket height.

15. The innerspring assembly of claim 1, wherein overlapping edges of said overlapping plies of material are adjoined together by a closing seam positioned adjacent an end surface of said pocketed coil springs.

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16. The innerspring assembly of claim 15, wherein said closing seam is disposed proximately adjacent a corner of said pocketed coil springs defined between said end surface and a side surface of said pocketed coil springs.

20           17. The innerspring assembly of claim 15, wherein said connecting seam comprises at least one connecting weld seam; and  
              wherein said closing seam comprises a closing weld seam.

18. The innerspring assembly of claim 17, wherein said connecting  
25 weld seam does not intersect said closing weld seam.

19. The innerspring assembly of claim 1, wherein said at least two strips of pocketed coil springs comprise a section of pocketed coil springs; and wherein the innerspring assembly comprises at least two of said sections of pocketed coil springs.

20. The innerspring assembly of claim 19, wherein said at least two sections of pocketed coil springs are interconnected to form at least a portion of the innerspring assembly.

21. The innerspring assembly of claim 20, wherein said at least two sections of pocketed coil springs are interconnected by an adhesive.

22. The innerspring assembly of claim 21, wherein laterally adjacent pairs of said pocketed coil springs in said at least two sections of pocketed coil springs are interconnected by said adhesive along a midportion of said pocket height.

23. The innerspring assembly of claim 19, wherein said at least two sections of pocketed coil springs have varying degrees of firmness.

24. The innerspring assembly of claim 1, wherein the innerspring assembly is integrated into an innerspring mattress assembly.

25. An innerspring assembly, comprising:

a plurality of strips of pocketed coil springs extending generally along an axis, each of said strips including a plurality of axially interconnected spring pockets each having a pocket height transverse to said axis, each of said strips comprising overlapping plies of material adjoined together by axially offset cross seams extending generally along said pocket height to define said spring pockets, each of said springs pockets containing a coil spring; and

wherein at least three of said strips of pocketed coil springs are coupled together by interconnecting said overlapping plies of material of said at least three strips.

26. The innerspring assembly of claim 25, wherein said overlapping plies of material of said at least three strips of pocketed coil springs are interconnected by welding.

27. The innerspring assembly of claim 25, wherein said overlapping plies of material of said at least three strips are interconnected by at least one connecting seam extending generally along said pocket height and axially offset from said cross seams.

28. The innerspring assembly of claim 27, wherein said connecting seam is arranged substantially parallel with said cross seams.

29. The innerspring assembly of claim 27, wherein said cross seams and said connecting seam are formed by ultrasonic welding.

30. An innerspring assembly, comprising:

a plurality of strips of pocketed coil springs extending generally along an axis, each of said strips including a plurality of axially interconnected spring  
5 pockets each having a pocket height transverse to said axis, each of said strips comprising overlapping plies of material adjoined together by axially offset cross seams extending generally along said pocket height to define said spring pockets, each of said springs pockets containing a coil spring, overlapping edges of said plies of material adjoined together by a closing weld seam positioned adjacent an  
10 end surface of said pocketed coil springs; and

wherein at least two of said strips of pocketed coil springs are coupled together by interconnecting said overlapping plies of material of said at least two strips by at least one connecting weld positioned along said pocket height.

15 31. The innerspring assembly of claim 30, wherein said connecting weld comprises a connecting weld seam extending generally along said pocket height.

20 32. The innerspring assembly of claim 31, wherein said connecting weld seam extends substantial entirely along said pocket height.

33. The innerspring assembly of claim 31, wherein said cross seams comprise cross weld seams axially offset from said connecting weld seam.

34. The innerspring assembly of claim 30, wherein said connecting weld does not intersect said closing weld seam.

35. The innerspring assembly of claim 30, wherein said closing weld seam and said connecting weld are formed by ultrasonic welding.

36. The innerspring assembly of claim 30, wherein said closing weld seam is disposed proximately adjacent a corner of said pocketed coil springs defined between said end surface and a side surface of said pocketed coil springs.

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37. The innerspring assembly of claim 36, wherein closing weld seam winds along said axis in a serpentine-type pattern.

38. The innerspring assembly of claim 36, wherein said overlapping edges adjoined together by said closing weld seam are folded over onto said side surface of said pocketed coil springs.

39. The innerspring assembly of claim 38, wherein said overlapping edges adjoined together by said closing weld seam are attached to said side surface of said pocketed coil springs.

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40. An innerspring assembly, comprising:

a plurality of strips of pocketed coil springs extending generally along an axis, each of said strips including a plurality of axially interconnected spring pockets each having a pocket height transverse to said axis, each of said springs  
5 pockets containing a coil spring; and

wherein a first strip of said pocketed coil springs is laterally coupled to a second strip of said pocketed coil springs, said first and second strips including:

a first set of laterally adjacent pairs of pocketed coil springs that are attached to one another; and

10 a second set of laterally adjacent pairs of pocketed coil springs that are unattached to one another so as to permit independent movement therebetween.

41. The innerspring assembly of claim 40, wherein said first set of laterally adjacent pairs of pocketed coil springs are attached to one another by an  
15 adhesive.

42. The innerspring assembly of claim 41, wherein said adhesive is glue.

20 43. The innerspring assembly of claim 41, wherein said first set of laterally adjacent pairs of pocketed coil springs are attached to one another by said adhesive along a midportion of said pocket height.

44. The innerspring assembly of claim 43, wherein said pocketed coil  
25 springs have a barrel-shaped outer profile.



45. The innerspring assembly of claim 40, wherein laterally adjacent pairs of said first set of pocketed coil springs are intermittently positioned between laterally adjacent pairs of said second set of pocketed coil springs.

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46. The innerspring assembly of claim 45, wherein laterally adjacent pairs of said first set of pocketed coil springs are alternatingly positioned relative to laterally adjacent pairs of said second set of pocketed coil springs.

10 47. The innerspring assembly of claim 40, wherein each of said strips of pocketed coil springs is comprised of overlapping plies of material adjoined together by axially offset cross seams extending generally along said pocket height to define said spring pockets; and

wherein at least one of said first and second strips of pocketed coil springs  
15 is coupled to at least one additional strip of said pocketed coil springs by interconnecting said overlapping plies of material.

48. The innerspring assembly of claim 47, wherein said overlapping plies of material are interconnected by at least one connecting seam extending  
20 generally along said pocket height and axially offset from said cross seams.

49. The innerspring assembly of claim 48, wherein said at least one connecting seam is a weld seam.

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50. The innerspring assembly of claim 47, wherein said overlapping plies of material are interconnected by welding.